SuperGuard

GPS Personal Tracker

---------- Operation Manual ----------

Portable GPS/GSM/GPRS Device **Model PT-3**

Thank you for purchasing the SuperGuard Personal Communication and Tracking device. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

Warranty

The APM Co., Ltd. (APM) warrants to the purchaser that this product, under normal use and conditions, will be free from defects in materials and workmanship for a period of 12 months from the date of original purchase. If a product proves defective during this warranty period, APM, at its option, either will repair the defective product without charge for parts and labor, or will provide an exchange for the defective product.

In order to obtain service under this warranty, the purchaser must notify APM of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The purchaser shall be responsible for appropriate packaging and shipping with a carrier designated by APM, with shipping charges paid by recipient (APM).

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care, alterations, mishandling or accidents. APM shall not be obligated to furnish service under this warranty to costs incurred for installation, to correction of antenna problems, removal or reinstallation or to damage to video tapes, discs, speakers, accessories or vehicle electrical system.

The extend of APM's liability under this warranty is limited to the repair or replacement provided above and, in no event, shall the company's liability exceed the purchase price paid for this product.

THIS WARRANTY IS GIVEN BY YTC IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. YTC AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. YTC'S RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE PURCHASER FOR BREACH OF THIS WARRANTY. YTC AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER YTC OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

Notices

- Do not touch the battery charger connector with any metal objects such as coins or key rings to avoid the danger of short circuit.
- Do not dispose of the battery in fire.
- Do not put the battery in your mouth. Unintentionally swallowing the battery may result in poisoning.
- Do not try to disassemble the product or accessories.
- The product has a built-in battery, which can only be replaced or changed by qualified technicians or authorized service personnel. Using an improper type of battery may result in explosion. Follow the manufacturer's instructions to dispose of the used batteries.
- Use of other batteries, DC adapter, car charger (optional) or desktop charger (optional) not specified by the manufacturer may result in possible danger.
- Under normal operation or charging, the handset may become warm or hot.
- Use an anti-static cloth to clean the product. Do not use any dry cloth or materials, which generate static electricity.
- Do not use chemical cleaning agents or cleaning agents with grinding components. It might scratch the surface of the outer casing.
- Recycle the cardboard and other packaging materials for environmental protection.

Flight Security Notes

Turn off the product on board an airplane or within the flight security range. Using mobile phones in an airplane is illegal and may endanger flight security. IPSs may reject services due to misuse of product, violation of law or offense against public security. Do not use the product in the airport unless permitted by airport personnel.

General Security Notices

- Turn off the product according to the instructions on one-way radio device security rules in vicinity of oil storage, chemical storage, or explosive substances.
- Tiny parts in the package should be placed out of reach of children to avoid accidents.
- Operating the product may affect the functionality of medical devices and equipment such as hearing aids or pacemakers. Follow the warnings and manufacturer's recommendations.

Automobiles with Air Bags

Do not place any object (including fixed or handheld wireless devices) in the effective range of air bags because huge air pressure may result in harm. If the wireless device is not properly installed, it may cause serious damage or injury when the air bags are inflated.

Security Notices During Driving

- Always drive with full concentration.
- Follow the local traffic rules and regulations.
- Use a headset or hands-free device to receive or place phone calls during driving.
- Do not park on a shoulder for calling except in emergencies.
- Turn off the product when entering a gas station.
- Do not put the product near combustible objects, explosive substances, or radio transmitters.
- Generally the electronic systems in car such as anti-lock braking system, active cruise control, and fuel injection system are not influenced by radio transmission. Manufacturers for the mentioned systems or devices provide you with information on anti-electromagnetic interruption function. If you have any question or doubt about radio transmission influence, consult your distributor.
- Unauthorized personnel should not open or disassemble the product.

Service and Maintenance

Users cannot repair or replace any part in the product, battery, or charger. It is strongly recommended that you should return the product to service centers authorized by APM for service or maintenance. For more information, consult APM or your distributors.

Effective Use

To enhance performance and reduce power consumption the product is built with embedded antenna. Do not cover any part of the antenna to maintain superior talking performance. To cover the antenna causes greater power consumption, this reduces talking time and standby time.

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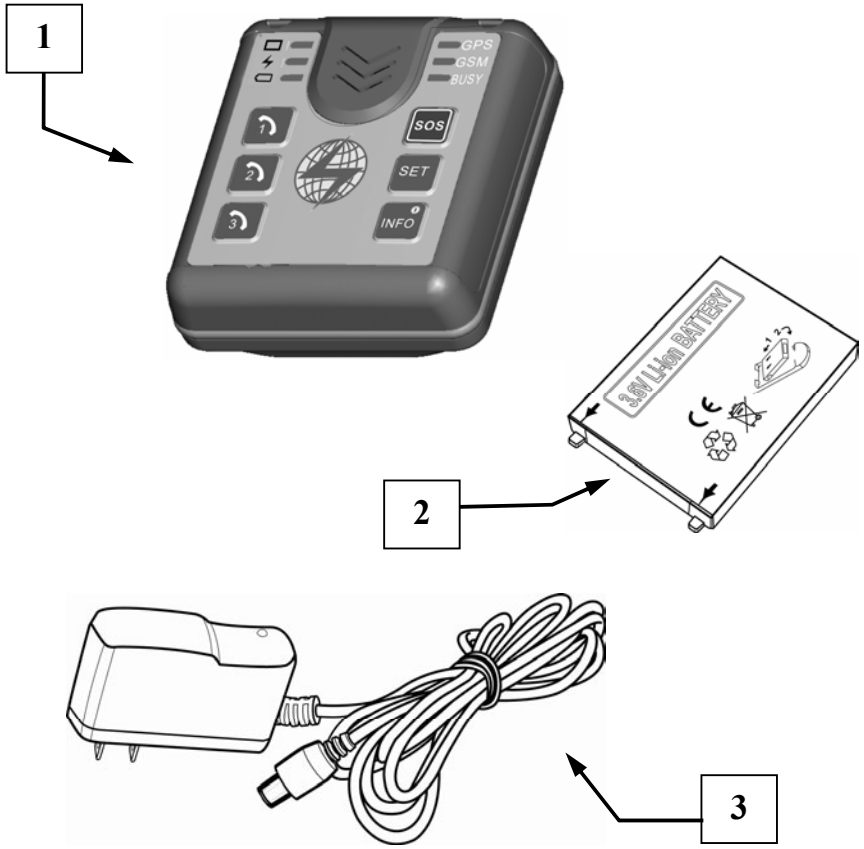
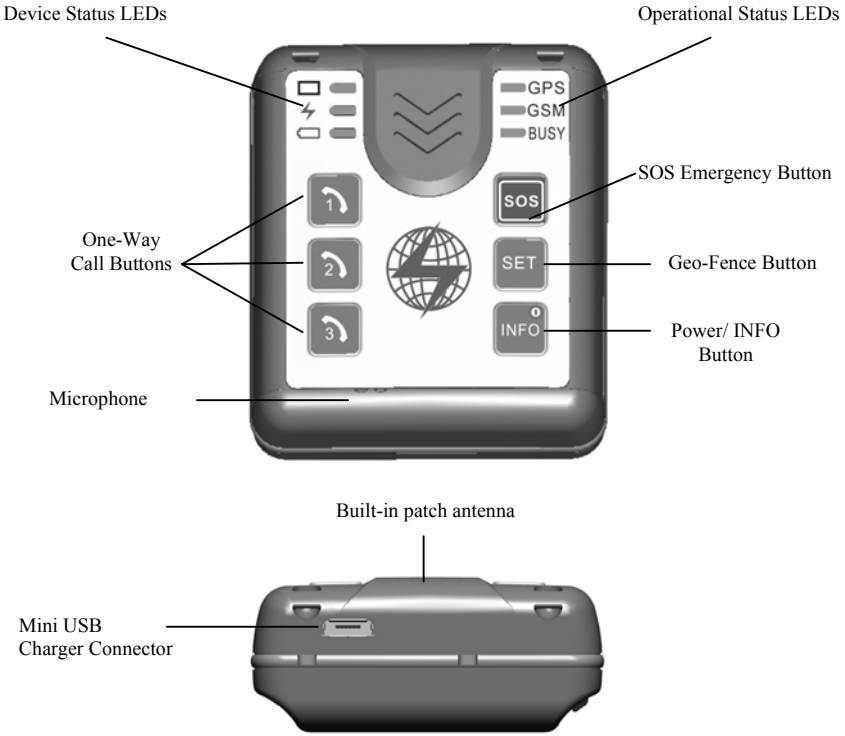
1. Parts & Accessories

On receipt of your Personal Tracker package, please check that all contents are complete and correct.



1. **SuperGuard Personal Tracker PT-3 Unit**
2. **Rechargeable Battery**
3. **Mini USB Charger**

This manual covers SuperGuard Personal Tracker model PT-3.
The PT-3 combines Global Positioning System (GPS) technology and GSM/GPRS mobile communication with online tracking and remote setup features.
All SuperGuard products can be managed and monitored over Control Base and Tracking System Server software or online over Internet Websites provided by professional service centers.



The following chapters describe the Personal Tracker in detail and help you familiarize yourself with functions and features. Read the manual carefully before you use the Personal Tracker.

2. Personal Tracker – Features

- **The Personal Tracker is designed as a compact, mobile GPS tracking device with one-way call features. It can memorize three preset numbers for voice monitoring.**
- **The Personal Tracker employs a patented Active SOS feature. In case its owner falls down, a G-Force or Impact alarm will be triggered. In addition, an automatic phone call will be placed to the main contact person, with 1-way call option to let other persons hear what happens in your surroundings.**
- **The Personal tracker comes with one SOS button designed for emergency calls. Pressing the button will trigger an alarm message to Control Base and up to 3 authorized contact numbers. In addition, an automatic one-way call will be placed to the main contact person.**
- **Users are able to setup and configure device settings, monitoring activities and alerts online, using Control Base software or Tracking Web services via Internet Explorer or mobile on GPRS enabled cell phones.**
- **Authorized contact persons can locate and track users per 2-RING call, SMS and online maps over Internet Website or GPRS cell phones.**
- **Users can define and load up to 4 restricted areas (Geo-Fence areas) to the device and setup maximum speed limit alerts.**

Introducing GPS:

The SuperGuard Personal Tracker is working in combination with an advanced GPS tracking system. It helps you determine your location, enable preset contacts to track your position any time, and place SOS calls in case of emergency.

The Personal Tracker is easy to configure through GPRS and SMS over Internet or GPRS and 3G enabled cell phones, user-friendly, and especially convenient for monitoring children, elderly and business travelers.

Global Positioning System (GPS) is a global radio navigation system, which consists of 24 MEO satellites and stations on the earth. A GPS receiver built in the device calculates your location and altitude via the signal from satellite. Based on triangulation of signals of at least three of the satellites, it applies a "Pseudo ranging" technique to calculate the transmission time of the radio signal from the satellite in order to measure the distance of each satellite, and then pinpoint the current location.

GPS Satellites emit two types of radio signals, "C/A" (Coarse/Acquisition) and "P" (Precision). The latter one is preserved for military use and requires decryption. Like other commercial GPS appliances, the Personal tracker uses "C/A" signal to pinpoint location and altitude. Likewise, the display accuracy of location will depend on varied factors, which include time.
Please note that those variations are fundamental characteristics of GPS, it doesn't indicate any malfunction of the mini tracker.

The following situations may affect accuracy of GPS:

1. Narrow alley between tall buildings in built up area.
2. Indoors
3. Bad weather
4. Under shelter
5. In tunnels
6. Inside a car with metal heat insulation. (We suggest avoid use near metal heat insulation while you are using the personal tracker in the car.)

3. Preparations

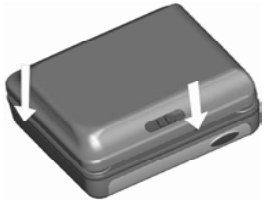
In order to use the Personal Tracker, the following preparations should be carried out:

Prepare one operational GSM SIM card. Make sure that the SIM card can operate without PIN protection and has GPRS with unrestricted Internet access enabled (ask your GSM operator for APN and GPRS dial up requirements). Empty the SMS storage of the SIM card using operational GSM phone (please refer your GSM phone manual to do this).
Press the Power (INFO) button for 3 seconds to shut down the device.

1. **Remove the back cover of the Personal tracker by pressing up the battery release lock and push the cover sideways.**

2. **Disconnect and remove the battery. Insert the SIM card into the SIM holder in the direction as shown in picture.**

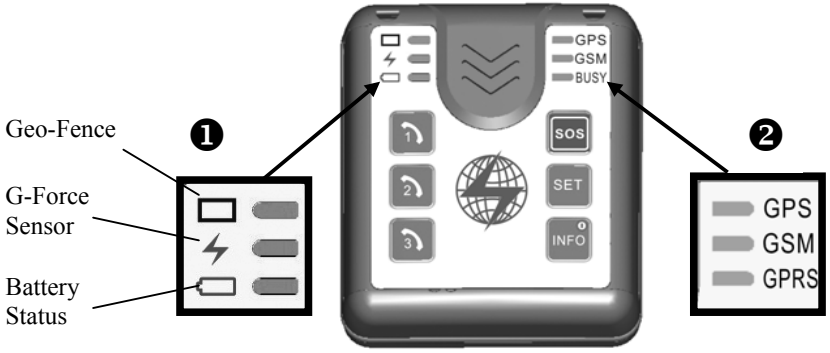
3. **Place the battery in the compartment and reconnect it.**



4. **Replace the cover and let it snap in completely.**

Press the Power button to power up the device.

4. LED Status Description



❶ **Device Status Indicators:**

- If Geo-Fence LED flashes:
  200m Geo-Fence has been activated
- If G-Force LED flashes:
  G-Force alarm (fall-down or impact) has been activated
- Battery Status LED:
  - Flashes in short sequence when battery power is low
  - Stays on when battery is charging, turns off when battery is fully charged

❷ **Operational Indicators**

- GPS LED:
  - Stays on when device is searching for GPS signal
  - Flashes when device has GPS lock
- GSM LED flashes:
  Device is registered to GSM network, able to send/ receive SMS and place or receive phone calls
- BUSY LED:
  Device is dialing GPRS service. If connected, LED will flash several times if connection to Control Base was successful. Will repeat if not successful.
  When SOS button is pressed for 2 seconds, BUSY LED will turn on for sending data.

5. Getting Started

After closing the battery cover, the Personal Tracker will power up and automatically attempt to register to GSM network.
Provided that your device is positioned in an area with clear un-obstructed view of the sky, the device will start scanning for GPS satellites to obtain its first GPS lock. This first fix can take several minutes.

If your device has been preconfigured with Control Base server information, the device will automatically attempt to connect to the Control Base after 5 minutes in order to activate your user account and send first position and status details.

To use all communication and tracking features of the device and if your service plan provides these, you may modify optional account information and device setup parameters from the Tracking Websites. Please refer to your Tracking Web or software guide to do additional account and device configurations.

The following additional user information and device configurations can be setup from the Tracking Websites (amongst others):

① User Name: This name will appear to identify the device when you receive GPS location and alarm notifications
② Contact 1, 2, 3: Phone numbers of authorized contact persons to remote control security features and receive alarm notifications.
③ Geo-Fence: You can load up to 4 restricted areas (Geo-fences) to the device and receive alarm notifications in case of violations
④ Speed Limit: You can define a speed limit to receive alarm notifications in case of exceeding.
⑤ Power Saving Modes: To save battery power, you can configure your device with different power saving modes.

6. Voice Monitoring Operation

The Personal Tracker allows you to place one-way calls and let other contacts listen to your surroundings through quick-dial.

Start Voice Monitoring Feature

Select and press the button for the contact number you want to call. (You will have to setup contact numbers through your online Tracking Web and load to the device prior to operation).

Press again to quick-dial to the contact number.

To end the one-way call, press any of the Contact number buttons.

Contact Numbers 1, 2, 3

7. Sending a Location Update

The Personal Tracker comes with an INFO button that allows you to send your current GPS position to the Control Base and all contact persons.

Press the INFO button to send a request with your current position to the Control Base.

- **The device will collect GPS data (ca. 30-60 sec) and send a message and GPS coordinates to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS short messages to all Contact numbers, with the text (*example*):**

> **Robert is in Madison Ave, near intersection Brixton Rd.; Request !**

Power On/ Off

The INFO button is also used to power the device on or off.

To power off the device, press the INFO button and hold for 3 seconds. Press again to turn the device on.

8. Alarm Reporting Features

You can use your Personal Tracker as an alarm reporting device. With the built-in Geo-fence function you can create a 200 meter Parking Geo-fence around the device. If the device leaves the area, an alarm report will be triggered. In addition, you can activate or disable the G-Force alarm features.

Press the SET button once to set and a 200 m Geo-fence around the device. Activation period is 30 sec.

Press the SET button a second time to activate the G-Force alarm (Fall-down or Impact). Activation period is 30 sec.

Press the SET button a third time to activate both Geo-fence and G-Force alarm.

Press the SET button a fourth time to disable both Geo-fence and G-Force alarm.

- **If a Geo-fence alarm has been triggered, the device will send an alarm message and GPS coordinates to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS short messages to all Contact numbers, with the text (*example*):**

> **Robert is in Madison Ave, near intersection Brixton Rd.; Geo-Fence Violation !**

In addition, you are able to setup and configure monitoring activities and alerts for the Personal Tracker, using Tracking Web services via Internet Explorer or mobile on GPRS enabled cell phones.

Pre-set Geo-Fence Alarms

- **If the device has been configured with a set of restricted geographic areas (Pre-Set Geo-Fences through Tracking Web), the following activities will be triggered when a Geo-Fence violation occurs:**

- **The Personal Tracker will send an alarm message and GPS coordinates to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS short messages to the list of authorized Contact persons, with the text:**

> **Robert is in Arlington., near intersection Fairfax Ramp; GEO Fence Violation !**

- **The Geo-Fence alert with location updates will continue every 60 minutes in case the device still remains in the restricted area.**

Maximum Speed Alarms

- **If the device has been configured with a maximum speed limit, the following activities will be triggered when the moving speed exceeds the speed limit:**

- **The Personal Tracker will send an alarm message and GPS coordinates to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS short messages to all Contact numbers, with the text:**

> **Robert is in Highway 166, near intersection Gleebe; Speeding**

9. SOS Emergency

The Personal Tracker comes with an SOS emergency button, which can be pressed to notify contact persons about current location and place a one-way emergency call.

Press the SOS button for two seconds to trigger the emergency call.

- **The device will send an alarm message and GPS coordinates to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS short messages to all Contact numbers, with the text (*example*):**

> **Robert is in Madison Ave, near intersection Brixton Rd.; SOS !**

- **The Personal Tracker will then automatically dial a one-way call to main Contact number.**

- **To end the SOS call, press any of the Contact numbers on the device.**

10. Locating and Tracking

NOTE: Only the Contact Numbers and Control Base will be able to send location and tracking commands. Using other cell phones or dial-up software to send commands to the unit will have no effect on the Device.

Authorized users can interrogate the Personal Tracker to receive locations, street names and details. If present, they can poll and track devices through Control Base software or Tracking Web services via Internet Explorer or mobile on GPRS enabled cell phones.

Get Detailed Locations

- **To receive detailed location information from the device or Control Base, do the following:**

- **From one of the contact numbers, place a call to the device and let it ring. Hang up after 4-5 seconds (ca. 2 rings).**

  Dial Call to Personal Tracker ➔ 2 Rings ➔Hang Up

- **The device will go GPRS online and send it's latest GPS position to the Control Base. The Control Base software will find the street name and closest intersection from a map server and send these details through SMS text message to you.**

  As an option, if the device's first attempt to dial GPRS failed for any reason, the GPS data will be sent to the Control Base through SMS instead. In that case, you will receive location details sent from the Control Base directly (backup feature).

NOTE: To send location requests from authorized Contact numbers, you will need to enable Caller ID features on your cell phone.

Online Tracking

- **By default, the Personal Tracker will send position updates to the Control Base server over GPRS in 5-Minute intervals.**

- **From the Control Base software, over Internet from the Tracking Website or GPRS enabled cell phones, you will be able to see latest position updates and display them on a map. You can view Tracking history and results over unlimited time.**

- **If your service plan allows it, from the Control Base or Websites, you are also able to setup Tracking schedules for periods up to 45 days, in intervals between 30 seconds and 17 hours.**

- **You can start and end tracking your devices in real-time, following its route on a map (GPRS connection and network coverage required).**

- **You can setup and modify device configurations, define Geo-Fence areas and speed limits. You will also be able to configure sleeping modes for the GPS engine to reduce power consumption.**

12. Technical Specifications

General	
The unit utilizes GPS to receive time, date, longitude, latitude, speed, direction data; GPRS for data exchange with Control Base and GSM for communication and short messaging.	
GSM	
GSM/GPRS module	Sim340 module GSM 850 MHZ GSM 900 MHz (2 watt) Class 4 GSM 1800 MHz (1 watt) Class 1 GSM 1900 MHZ
GSM Antenna	Built-in
GPS	
GPS module	L1, C/A code receiver, 12 channels
Protocol	NMEA-0183 V3.0, proprietary iTALK binary protocol
GPS Antenna	Active Patch antenna
Accuracy	10m-20m
Update rate	Max 30sec. Configurable. Default setting 120 Second
Start time	Cold start: 44sec Hot start: 3sec (Open Sky)
Speed/Accuracy	0.2 M/sec. (50%)
Acceleration	Max: 4g
Max Height	18,000 M
Sensitivity	-158 dBW
Datum Coordinate	WGS-84
Electrical	
Operating Voltage	3.6V
Charge Voltage	6-8V
Stand by	Pico Power
Operating	80mA
Talk	100mA
Battery	Motorola 998 1500 mAh Operating time: >8h, Talk time: 3h, Standby time: 100h
Others	
Operating temperature	-10℃ to +50℃
Dimensions	55 x 61 x 24 mm
Speaker (Built-in)	32Ohm/0.5W
Microphone (Built-in)	58db